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- (71) Applicant (for all designated States except US): CURE THERAPEUTICS, INC. [US/US]; 140 West 57th Street, Suite 3B, New York, NY 10019 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ANG, Robert [US/US]; 461 Central Park West, New York, NY 10025 (US). JACOBSON, Sven [US/US]; 800 6th Ave, Apt 17B, New York, NY 1001 (US). WEIMMAN, Ludwig [US/US]; 20 Susie Wilson Rd., Essex Junction, VT 05402 (US). MURRELL, George, Anthony, Calvert [AU/AU]; 57 Bundarra Road, Bellevue Hill, Sydney, NSW 2023 (AU). GELIEBTER, David [US/US]; 319 Algonquin Rd., Franklin Lakes, NJ 04717 (US).
- (74) Agents: OAKESON, Gary, P. et al.; Thorpe, North & Western, LLP, 8180 S. 700 E. #350, Sandy, UT 84070 (US).
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(54) Title: TRANSDERMAL PATCHES CONTAINING A NITRIC OXIDE-DONOR AND A SECOND ACTIVE AGENT AND ASSOCIATED METHODS

(57) Abstract: The present invention is drawn to a transdermal patch for the delivery of a nitric oxide-donor and a second active agent. The patch can comprise a backing layer and an active agent-containing composition which is supported at least in part by the backing layer. The active agent-containing composition can include an amount of a nitric oxide-donor and an amount of a second active agent. The transdermal patch can have a drug delivery zone defined by the area where the composition contacts an intact human skin site, and the transdermal patch can be formulated to deliver a nitric oxide donor, such as nitroglycerin, at from about 5 µg/hour to about 85 µg/hour. The second active agent can be selected from a number of agents including NSAIDs, opioids, local anesthetics, menthol, salicylic acid, salicylic acid derivatives, vanilloid receptor-1 activators, corticosteroids, vasoconstrictors, and combinations thereof.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/05395

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 14
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claim 14 depends on a claim (20) that does not precede it.

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
 2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.
 3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

 4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
- Remark on Protest**
- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
 - The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/05395

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **A61F 13/00** (2006.01)

USPC: 424/449
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 424/449

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PAOLONI et al., "Topical Glyceryl Trinitrate Treatment of Chronic Noninsertional Achilles Tendinopathy", The Journal of Bone and Joint Surgery, JBJS.ORG, Volume 86-A, Number 5, May 2004, pages 916-922.	1-13 and 15-26
Y	PAOLONI et al., "Topical Nitric Oxide in the Treatment of Chronic Extensor Tendinosis at the Elbow", The American Journal of Sports Medicine, Vol. 31, No. 6, 2003, pages 915-920.	1-26
Y	US 6,645,520 B2 (HSU et al.) 11 November 2003 (11.11.2003), entire document.	1-26

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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Name and mailing address of the ISA/US:
 Mail Stop PCT, Attn: ISA/US
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 Facsimile No. (571) 273-3201

Authorized officer:
 Isis A. Ghali *J. Roberts for*
 Telephone No. (571) 272-1600

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/05395

Continuation of B. FIELDS SEARCHED Item 3:

WEST all data bases

Search Terms: transdermal, glyceryk trinitrite, steroidal, nonsteroidal, menthol